

REMARKS/ARGUMENTS

This amendment is filed in response to the final Office action dated 23 August 2006 which has been affirmed by the BPAI in a decision dated 15 September 2009.

The drawing objections have been addressed through the filing of an Amendment Under Rule 116 on 10 October 2006.

In paragraph 9 of the Office action, claims 1-6, 8-13, 15-20, 22-27, 29-34, and 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,081,700 to Crozier (“Crozier”) in view of U.S. Patent No. 6,338,129 to Pechanek et al. (“Pechanek”). Applicant has substantially amended, and reduced the number of, independent claims in response.

Claim 1 has been amended to recite, *inter alia*, “each shifting operation being preformed such that each processing element in each row or column receives the data originally held by every other processing element in that row or column, respectively” and “a plurality of selecting operations performed by said plurality of processing elements after each shifting operation on said received data, where each of the received data is a candidate for selection.” Support for the amendments can be found in paragraphs [0062] and [0063], among others, of the application as filed. Those paragraphs provide:

[0062] In operation, an input matrix of data is placed on the shift network, and moved around by using a combination of north, south, east and west shifts. In addition, the column select register 59 and row select register 61 may be used to determine which of the PEs is active. The exact combination of active PEs, instructions, and direction in which the instruction (shift) is performed will depend upon the particular array manipulation required. As the instructions are executed and the shifting proceeds, each PE will be presented with different array values. For example, if a wrap shift is performed a number of times equal to the number of PEs in a row, each PE in the row will see every value held by all of the other PEs in the row.

[0063] A PE can conditionally select any of the values it sees as its final output value by conditionally loading that value, which is representative of an output result matrix. However, only one value, the desired result, is loaded.

Even if the process of Crozier could be performed on the array of Pechanek, that would not result in the specific movement and selection of data as recited in amended claim 1.

Independent claims 8, 22, and 36 have been similarly amended. Independent claim 15 has been rewritten as a dependent claim depending from claim 8, and claims 16-21 cancelled. Independent claim 29 has been rewritten as a dependent claim depending from claim 22, and claims 30-35 cancelled. It is believed that all of the independent claims remaining in the application are patentable over the combination of Crozier and Pechanek. For that reason, the rejection of the dependent claims is not addressed.

The examiner's attention is respectfully directed to the four related applications listed in the first paragraph of the instant application. The status of those applications is as follows: in 10/689,366 a Notice of Allowance was mailed on 16 October 2009. The other three applications have issued and are now U.S. Patent Nos. 7,596,678; 7,263,543; and 7,581,080. Language identical to or similar to the language added to the claims in the instant case may be found in these other cases. For the convenience of the examiner, the art cited in these other four cases is submitted in the information disclosure statement filed herewith. The file histories, including the Office actions issued in the other four cases, are available to the examiner through the records of the PTO.

Applicant has made a diligent effort to place the instant application in condition for allowance. Accordingly, a Notice of Allowance for claims 1-15, 22-29, and 36 is respectfully requested. If the examiner is of the opinion that the instant application is in condition for disposition other than through allowance, the examiner is respectfully requested to contact applicant's attorney.

Respectfully submitted,



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